DEPARTMENT OF ECOLOGY
Environmental Assessment Program

January 31, 2014

TO: Adriane Borgias, Spokane River Water Quality Lead, WQP-ERO

THROUGH: Dale Norton, Unit Supervisor, EAP-TSU

FROM: Keith Seiders, NRS3, EAP-TSU

SUBJECT: **Data Transmittal: 2012 Spokane River Fish Contaminant Sampling Results**

Adriane,

I'm sending you an Excel file that contains results from the 2012 Freshwater Fish Contaminant Monitoring Program efforts in the Spokane River. The goal of the monitoring effort was to collect data to characterize contaminant concentrations and determine temporal and spatial patterns in the Spokane River.

These efforts were funded by EAP, ERO, and the Spokane Tribe of Indians. The tribe also helped with fish collections. We should discuss how these data will be disseminated and used prior to an Ecology report on this effort which is due in late March, 2014. These data should be considered provisional until the final report is issued.

Fish were collected from mid-September to early November 2012 from seven sites between the ID-WA border and the upper Spokane Arm of Lake Roosevelt (Table 1). Eighty-three composite samples were formed from five species of fish. Species were largescale sucker, mountain whitefish, rainbow trout, northern pikeminnow, and brown trout. Samples of all species were processed as skin-on fillet tissue except for largescale suckers which were processed whole.

Table 1. Sample Areas and Number of Samples per Species Collected

Sample Location	LSS	MWF	RBT	NPM	BNT
Spokane R, Stateline	7				
Spokane R, Plant Ferry to Upriver Dam	7		3	1	
Spokane R, Mission Park	7	5	3		
Spokane R, upstream of Ninemile Dam	7	7	3		
Spokane R, Upper Lake Spokane	7	7	1	1	
Spokane R, Little Falls Pool	7			3	
Spokane R, Upper Spokane Arm of L. Roosevelt	1		5		1

Target analytes were PCBs, dioxins/furans, PBDEs, five metals (As, Cd, Hg, Pb, Zn), and chlorinated pesticides. Ancillary parameters included fish length, weight, age, and lipid content.

Table 2 is a brief summary of results for selected analytes. The data file contains all lab and field data and includes a table of contents for the 10 worksheets.

Table 2. Spokane River Fish Contaminant Summary for Selected Analytes

Statistic	t-PCB (ug/kg)	TCDD (ng/kg)	TEQ-TCDD (ng/kg)	t-PBDE (ug/kg)	4,4'-DDE (ug/kg)
count	85	28	28	85	20
min	9.6 U	0.020 UJ	0.0001 J	4.0 J	2.7
max	370	0.100 J	0.725 J	1627	68
mean	88.0	0.056	0.195	226.9	16.2
Std Dev	71.1	0.035	0.198	332.5	14.4
median	59.9	0.038	0.120	128.9	11.0
90th %ile	171.1	0.108	0.488	467.8	28.3
WQ Criterion	5.3	0.065	0.065	none	31.6

Please contact me if you have any questions.

cc: Will Kendra, Section Manager, EAP-WOS
Brandee Era-Miller, ES4, EAP-TSU
Casey Deligeannis, ES3, EAP-TSU